

IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A pumping arrangement for pumping a pre-established multi-phase fluid flow, said arrangement comprising:

a centrifugal pump which has engaged thereto, a fluid inlet pipe connected in fluid communication with a multi-phase fluid source and an outlet pipe and said centrifugal pump being driveable by a power providing means,

a fluid communication providing means to provide a communication of fluid between said outlet pipe and said inlet pipe, said fluid communication being such as to provide a fluid connection between said outlet pipe and said inlet pipe to deliver higher pressure multi-phase fluid ~~of a higher pressure~~ from said outlet pipe into the lower pressure multi-phase fluid at ~~to~~ said inlet pipe upstream of said centrifugal pump, when said centrifugal pump is in operation,

wherein said centrifugal pump includes an impeller which has a plurality of vanes configured to define there between one of three and four impeller vane separated passageways.

2. (Previously Presented) The pumping arrangement as claimed in claim 1 wherein said arrangement is for pumping a fluid of gaseous/liquid mix.

3. (Previously Presented) The pumping arrangement as claimed in claim 1 wherein said power providing means is an electric motor.

4. (Previously Presented) The pumping arrangement as claimed in claim 1 wherein said fluid connection is a bleed line to bleed a portion of said fluid from the outlet pipe to the inlet pipe.

5. (Previously Presented) The pumping arrangement as claimed in claim 1 wherein said fluid connection between said outlet pipe and inlet pipe includes at least one nozzle at the inlet pipe for injection of bled fluid into the inlet pipe.

6. (Currently Amended) The pumping arrangement as claimed in claim 5 wherein said at least one nozzle provides, an increase in velocity head to said bled flow prior to the point of injection as a result of a reduction in the ~~the~~ flow area of the at least one nozzle.

7. (Previously Presented) The pumping arrangement as claimed in claim 5 wherein said at least one nozzle is oriented in respect of the inlet pipe so as to impart a pre-pump rotational force onto an inlet side multiphase fluid.

8. (Previously Presented) The pumping arrangement as claimed in claim 7 wherein said pre-pump-rotation is in a direction co-rotatory with an impeller rotation direction.

9. (Cancelled)

10. (Previously Presented) The pumping arrangement as claimed in claim 1 wherein the impeller is one modified from an impeller of a centrifugal pump which would operate at or about

peak efficiency but where the fluid is liquid only, said modification including the removal of vanes to provide said vane separated passageways.

11. (Cancelled)

12. (Cancelled)

13. (Currently Amended) A method of pumping pre-established multi-phase fluid flow, said method comprising:

providing a centrifugal pump which has engaged thereto a fluid inlet pipe connected in fluid communication with a multiphase fluid source and an outlet pipe through which said fluid is delivered,

providing a power providing means to rotate the impeller of said centrifugal pump, and

bleeding a portion of fluid from the outlet pipe and delivering the bled higher pressure multiphase fluid via a fluid connection providing means to said inlet pipe to be injected into the lower pressure main multiphase fluid flow into said centrifugal pump,

wherein said centrifugal pump is provided with an impeller which has a plurality of vanes configured to define there between one of three and four impeller vane separated passageways.

14. (Previously Presented) The method of pumping as claimed in claim 13 wherein said method further includes providing a flow control means in said fluid connection providing means to allow the rate of bled fluid flow to be controlled.

15. (Previously Presented) The method of pumping as claimed in claim 13 wherein said method further includes the provision of a means to measure the volumetric rate and head of pressure of delivered fluid, the measurements taken to be utilised in setting of the flow control means.

16. (Previously Presented) The method of pumping as claimed in claim 13 wherein said bleeding includes prior to the injection of said fluid, splitting of fluid into at least two separated flow paths, wherein for each flow path there is an injection nozzle provided to inject the flow into a main suction flow to said centrifugal pump.

17. (Previously Presented) The method of pumping as claimed in claim 13 wherein said injection of said bled fluid induces a rotation onto the main multiphase fluid flow.

18. (Previously Presented) The method of pumping as claimed in claim 17 wherein said rotation is in a direction co-rotatory with a direction of rotation of the impeller.

19. (Currently Amended) A pumping arrangement in a ducted pre-established multi-phase fluid flow system, said arrangement comprising:

a centrifugal pump which has engaged thereto a fluid inlet pipe connected in fluid communication with a multiphase fluid source and an outlet pipe and driveable by a power providing means,

a fluid communication providing means to provide a communication of fluid between said outlet pipe and said inlet pipe, said fluid communication means providing a fluid connection between

said outlet pipe and said inlet pipe to deliver higher pressure multiphase fluid ~~of a higher pressure~~ from said outlet pipe into the lower pressure multiphase fluid at ~~to~~ said inlet pipe when said centrifugal pump is in operation,

wherein said centrifugal pump is provided with an impeller which has a plurality of vanes configured to define there between one of three and four impeller vane separated passageways.